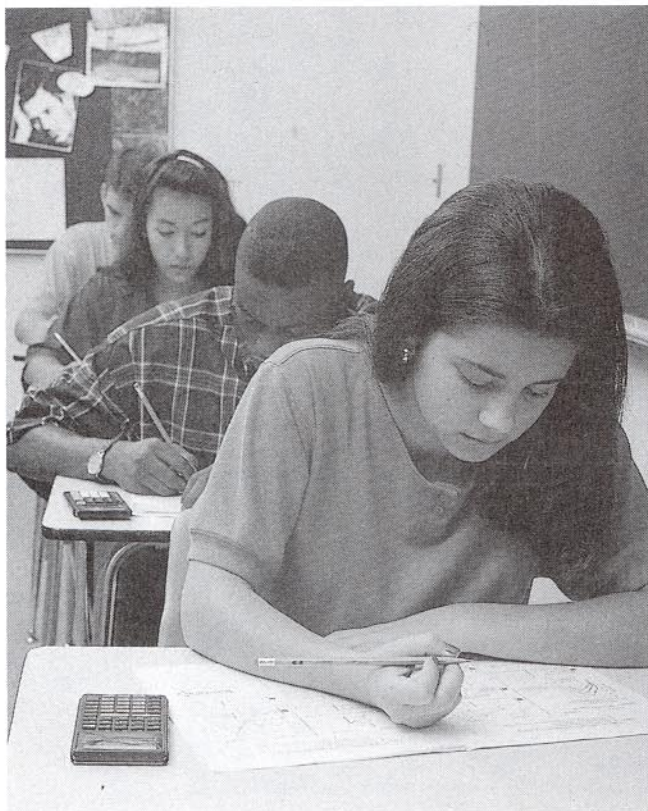


Introduction

Each year, over two million high school juniors and seniors across the nation sit down on a Saturday morning, and for about three hours, tackle one of two college admission tests, the SAT (Scholastic Assessment Test) or the ACT (American College Test). These tests are used by colleges and universities as one of the factors in determining who will be admitted to their institutions, in what programs, and at what level of advancement. This booklet is designed to give you the information you will need to prepare for the mathematics section of these tests.



Preparing for the SAT or ACT

The most important thing you can do to prepare yourself for a college entrance exam is *practice*. Students who take the SAT or ACT more than once almost always show an improvement in their scores, for the simple reason that they are more familiar with the test the second time around. The more you practice, the better your chance of achieving your own personal best.

This booklet will provide you with the understanding and practice you need to take a college entrance exam. It includes an explanation of the three types of questions found on the SAT-I: Mathematics Reasoning Test (the ACT uses only one type of question—multiple-choice), a list of test-taking strategies for each type of question, and some sample questions for each type of question with their solutions. In addition, two practice pages have been provided for each type of question, so you can get practice in answering them. Work through all the problems, and if you would like more practice, obtain an SAT or ACT workbook that contains old tests from the library or a bookstore.

Some General Strategies for Taking the SAT or ACT

You will find specific advice about strategies for each type of question in the lessons to come. Here are some general strategies that will also help.

1. Pace yourself.

The average time allotted per question is relatively short. It is about 1 minute. The following strategies will help you to use your time most effectively.

- Bring an accurate watch and keep track of how much time has passed.
- Do not spend too much time on any one question. If you are stuck, skip the question and come back to it later. If you don't have time, don't worry about it. Very few students answer all the questions.
- You are not expected to do long, time-consuming computation. Look for ways to use estimation and properties of numbers to identify solutions.

- Use your calculator when necessary, but don't overuse it. That is, some questions are more quickly and effectively solved by hand.
2. Use space in the test booklet for scratchwork.
Bring four new Number 2 pencils with good erasers. Mark up the test booklet to help yourself. Cross out answers that you know are wrong. Mark up parts of geometric figures.
Organize your scratchwork so, if you have time, you can go back and check it later. For example, you might circle the scratchwork for question 15 and label it with a large "#15."
You never need to compute mentally. If you are nervous or rushed, it might be good to write down even very simple sums such as $8 + 7$. Many students are more accurate with a pencil than when doing math "in their heads."
 3. Make sure you blacken the ovals correctly.
It is easy to miss a line or blacken the wrong oval. To avoid this, double-check the question

number and make sure the oval represents the answer you believe is correct. You don't want to miss a problem because of an error in recording the answer. Sample answer sheets have been provided for you on pages 9 and 10, so you can practice blackening the correct ovals for your answers to the questions on the practice pages.

4. Don't try to memorize gimmicks for "beating the test."

It takes just as long, or longer, to memorize the gimmicks as it does to study and practice solving problems.

The day before you take the SAT or ACT, review the specific strategies for each type of question. Then let yourself relax. Go to a movie or read a good book. But be sure to get a good night's sleep and be ready the next morning to achieve your personal best. Good luck!

